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TITLE : VOLUME-REDUCING TREATMENT OF POLYSTYRENE FOAM WASTE, PRODUCTION
OF RECOVERED POLYSTYRENE RESIN AND AGENT FOR VOLUME-REDUCING
TREATMENT OF POLYSTYRENE FOAM WASTE

ABSTRACT : PROBLEM TO BE SOLVED: To treat a polystyrene foam waste by a method capable of
treating the waste at a normal temperature without heating, extremely readily separating
the waste from the volume reducing treatment solvent and preventing change of color, by
bringing the waste into contact with a mixed solvent comprising plural solvents.

SOLUTION: (C) A polystyrene foam waste is brought into contact with (A) a first solvent to
readily dissolve a foamed polystyrene resin and (B) a second solvent having a low
solubility of a foamed polystyrene resin. The volume of the component C is reduced and a
polystyrene resin phase containing the solvents is separated from a solvent phase.
Preferably the component A comprises one or more of an unsaturated aliphatic
hydrocarbon and a cyclic aliphatic hydrocarbon, to be concrete, benzene, toluene, xylene,
etc. The component A is 50-90wt.% in the mixed solvent. The component B uses one or
more of a chain saturated aliphatic hydrocarbon, to be concrete, a 8-15C saturated
aliphatic hydrocarbon and an alcohol, to be concrete, an alcohol containing a 2-13C
saturated aliphatic hydrocarbon group.

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